# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re PATENT application of	) Confirmation No.: 4094
Lisa S. Purvis et al.	)
Application No. 10/757,688	) Examiner: Wilson W. Tsui
Filed: January 14, 2004	) Group Art Unit: 2178
For: SYSTEM AND METHOD FOR	)
DYNAMIC DOCUMENT LAYOUT	) Date: July 16, 2007

# **APPEAL BRIEF**

# MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This Appeal is from the decision of the Examiner dated November 15, 2006, finally rejecting pending claims 1-28, which are reproduced as the Claims Appendix of this brief.

The Commissioner is hereby authorized to charge the \$500.00 government fee due in accordance with 41.20(b)(2), and any additional fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 24-0037.

# I. REAL PARTY IN INTEREST

This application is assigned to the Xerox Corporation, who is the real party of interest in this appeal.

# II. RELATED APPEALS AND INTERFERENCES

There are presently no appeals or interferences known to the Appellants, the Appellants' representative, or the assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

# III. STATUS OF CLAIMS

Claims 1-26 stand finally rejected and are the subject of this appeal.

# IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the final rejection. In response to the final rejection, Appellants submitted a Request for Reconsideration on January 16, 2007. The Examiner issued an Advisory Action on February 20, 2007. On page 2, lines 1-2 of the Advisory Action, the Examiner withdrew the rejection of claims 1-26 under 35 U.S.C. § 112, first paragraph, which was first presented on pages 2 to 3 of the final Office Action.

# V. SUMMARY OF INVENTION

The present invention relates to a system and method for dynamic document layout. In particular, the present invention relates to a system and process in which at least one mutator is identified and applied to a document to change the appearance of the printed or displayed document.

A document may not be properly formatted for printing or display on a selected printer or display device. To resolve this problem, automated document-layout systems have been developed. These prior document-layout systems have relied on the use of fixed algorithms and style sheets to determine a document's layout. Although these types of document-layout systems work for some

applications, the result is rigid, inflexible and thus limits their use to certain classes of document and types of layout. Additionally, these types of systems tend to make all documents look alike which is not always desirable. While genetic algorithm approaches to layout have been developed to enable automatic generation of varying layouts by way of applying a series of mutations to a layout to evolve it to an optimal layout, these mutation algorithms must be programmed beforehand, and then only those that have been programmed can be applied. However, it is not always possible to anticipate beforehand and create algorithms for all of the possible coordinated mutations that might be valuable in an automated document-layout scenario. Also, knowing which mutations to apply and how to apply them for automated layout of a document would improve the mutation effectiveness.

The claimed subject matter involves first looking to stored documents which were mutated in the past, a determination of which of the previously mutated and stored documents most closely resembles the document currently being mutated, and then uses the mutators applied to mutate the previously stored documents. The claimed invention, therefore, utilizes a case-based approach that applies at least one mutation to an original document to be displayed or printed.

The foregoing concepts are set forth in each of Appellants' independent claims, which are now described in detail:

# Independent Claim 1

Claim 1 is directed to a system comprising a comparison system (e.g., system 12 shown in FIG. 1 and described starting on page 3, line 1 of paragraph 00015 to page 5, the last line of paragraph 00017) that compares one or more elements of at least a portion of an original document against the same types of elements in at least a portion each of a plurality of stored documents (e.g., see page 6, lines 1-9 of paragraph 00021), a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing (e.g., see page 6, lines 9-12 of paragraph 00021, and lines 1-10 of

paragraph 00022), and a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document (e.g., see page 6, lines 1-3 of paragraph 00023; page 7, lines 1-3 of paragraph 00025; page 8, lines 1-3 of paragraph 00027; and page 9, lines 1-5 of paragraph 00028).

#### Independent Claims 9 and 18

Claim 9 is directed to a method (e.g., see FIG. 2 and page 5, lines 1-3 of paragraph 00020) comprising the processes of comparing one or more elements of at least a portion of an original document against the same types of elements in at least a portion each of a plurality of stored documents (e.g., see item 102 in FIG. 2; and page 6, lines 1-5 of paragraph 00021), identifying the stored document with the portion which is closest to the portion of the original document based on the comparing (e.g., see item 104 in FIG. 2; page 6, lines 9-12 of paragraph 00021; and lines 1-10 of paragraph 00022); and applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document(e.g., see items106 and 114 in FIG. 2; page 6, lines 1-3 of paragraph 00023; page 7, lines 1-3 of paragraph 00025; page 8, lines 1-3 of paragraph 00027; and page 9, lines 1-5 of paragraph 00028).

Similar processes are recited in claim 18 with respect to a computer readable medium having instructions stored thereon that cause a processor to perform the processes recited in claim 9 (e.g., see page 4, lines 1-6 of paragraph 00017). Thus, it is not believed further summary of claim 18 would be required for the purposes of this appeal.

# VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are as follows:

- A. Claims 1-3, 5, 9-12, 14, 16, 18-21, 23 and 25 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hind et al. (U.S. Patent No. 6,463,440) in view Zlotnick (U.S. Patent No. 6,778,703).
- B. Claims 4, 13 and 22 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the Hind et al. in view of Zlotnick, and further in view of Brown et al. (U.S. Patent No. 6,880,014).
- C. Claims 6-8, 15, 17, 24 and 26 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hind et al. in view of Zlotnick, and further in view of Wanderksi et al. (U.S. Patent No. 6,519,617).

# VII. ARGUMENT

A. The rejection of Claims 1-3, 5, 9-12, 14, 16, 18-21, 23 and 25 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hind et al. in view Zlotnick should be reversed

In accordance with the case law, as summarized in the MPEP § 2143, three criteria must be met to establish a *prima facie* case of obviousness. First, the cited documents <u>must</u> teach or suggest all of the claim limitations. Second, there <u>must</u> be some suggestion or motivation, either in the cited documents themselves or in the knowledge generally available to one of ordinary skill in the art, to have combined the teachings of the cited documents. Third, there <u>must</u> have been a reasonable expectation that the documents could have been successfully combined.

This rejection cannot stand because the Hind et al. and Zlotnick patents, whether considered individually or in any combination, fail to teach or suggest each and every feature set forth in the independent claims. More particularly, neither Hind et al. nor Zlotnick teach or suggest the claimed features of "a mutation system that

applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as set forth in Appellants' independent claim 1, and the process of "applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in each of Appellants' independent claims 9 and 18.

### Independent claims 1, 9 and 18

In setting forth the rejection of independent claims 1, 9 and 18, the Examiner asserts that the Hind et al patent teaches a system in which a source/original document is comprised of content data (XML) and style/layout data (column 1, lines 40-47), uses one or more elements as arguments for a matching system to compare against the same elements in at least a portion each of a plurality of stored documents (column 5, lines 5-25: whereas, a matching system is used to compare characteristics used as arguments in a match system against a the same characteristics in a plurality of stored layouts/styles), a determination system that identifies the stored document with the portion which is closest to the arguments used for the matching system (claim 1: whereas, through partial matching, a style document is selected based on the closest matching characteristic(s) sent to the matching system), and a mutation system that applies one or more mutators to the portion of the original document which were used in the portion of the identified stored document (whereas, each style sheet has one or more "template rule constructs" that is/are used to mutate an original document (column 1, lines 61-67)). The Examiner acknowledges Hind et al does not teach a system that compares one or more elements of at least a portion of a original document against the same elements in at least a portion each of a plurality of stored documents, and a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing.

However, contrary to the Examiner's above assertion, Hind et al. does not teach or suggest "a mutation system that applies one or more mutators to the portion

of the original document which were used in the portion of the identified stored document." Rather, the Hind et al. patent is directed to retrieving style sheets from a data repository based upon matching one or more stored characteristics of a style sheet against a pattern (column 8, lines 15-19). According to Hind et al., an attribute storing characteristics of a style sheet and an attribute storing the identification of a style sheet are stored in an LDAP object (column 9, lines 31-43). When a pattern is matched against the characteristics stored in the LDAP objects, a style sheet from the repository is identified for that pattern. Hence, even if one were to consider, for the sake of argument, that the Hind et al. objects could reasonably be construed to be a "stored document," as claimed, there is no mention or suggestion whatsoever in Hind et al. of any mutation applied to these stored objects, much less an application of that mutation to a portion of an original document. Thus, it is respectfully submitted that Hind et al. does not describe, teach or suggest "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1. For similar reasons, Hind et al. does not teach or suggest the features of "applying one or more mutators ... which were applied to mutate the portion of the identified stored document" set forth in claims 9 and 18.

In the Advisory Action dated February 20, 2007, the Examiner alleges the following:

However, Hind teaches the identified stored documents(s) were mutated, since the stored documents/LDAP-objects underwent a mutation/change process during the creation process. Specifically, the mutations/particular-style sheet characteristics were saved in a document/LDAP-object, and thus the document/LDAP-object has been mutated/changed upon saving of the mutation/style-characteristics. (See column 5, lines 25-50 of Hind et al)

As explained in the previous rejection, a mutation system applies one or more mutators (column 1, lines 61-67: whereas mutation for elements, based upon style sheet rules to create a specific output), and specific style sheets are retrieved using stored document/LDAP objects (for which as explained above, each stored document/LDAP object has been mutated by a save/creation process which included mutation/style sheet characteristics). (See column 4, lines 21-24, and column 8, lines 15-20).

With respect to the above, Appellants respectfully submit that one of ordinary skill in the art would not find the Examiner's interpretation of the claim terms "mutators" and "to mutate" reasonable, and the applied references do not support such a meaning. A "mutation" would involve changing something into something else. A particular "mutator" operating on a document performs a particular mutation or change to that document. In any event, even considering *arguendo* the Examiner's new twisted and unreasonable interpretation of the term "mutation," Hind et al. does not teach applying any <u>same</u> "creation/save" mutator <u>to an original document which was applied to an XSL style sheet</u> (it is believed the Examiner considers that the claimed "identified stored document" corresponds to the Hind et al. XSL style sheet identified from a LDAP object, which is previously created from the identified style sheet and saved in a LDAP directory).

Rather, Hind et al. is directed to identifying XSL style sheets that are used to transform or tailor content of a document for presentation in a specific target environment (see, column 1, lines 44-45, column 3, lines 10-13), such as those described in Appellants' background section of the specification (see, page 1, paragraph 0003). To more quickly identify which style sheet to apply to a document to be tailored or transformed, Hind et al. extracts characteristic identifiers from the XSL style sheets, creates LDAP objects containing the characteristic information and stores these objects in an LDAP directory. By first finding a match with one or more of the stored LDAP objects, one or more corresponding XSL style sheets for transforming or tailoring a document are quickly identified. However, Hind et al. does not describe, imply, teach, or suggest anything whatsoever about a mutator that mutated a style sheet also is applied to mutate a portion of an original document. In other words, the Examiner's logic would require a teaching in Hind et al. that a source document being transformed or tailored is operated on to extract style sheet characteristics and store these characteristics in a LDAP object. Hind et al. does not even remotely suggest any such operation.

Hence, the Examiner is incorrect in alleging Hind et al. teaches "a mutation system that applies one or more mutators to the portion of the original document

which were applied to mutate the portion of the identified stored document," as recited in claim 1, and the features of "applying one or more mutators ... which were applied to mutate the portion of the identified stored document" set forth in claims 9 and 18.

The applied Zlotnick patent does not remedy the shortcomings of Hind et al. With respect to Zlotnick, the Examiner asserts that the system compares one or more elements of at least a portion of a original document against the same elements in at least a portion each of a plurality of stored documents (whereas, for each portion compared, icons representing elements of the original document, are compared to icons in a plurality of stored documents (column 11, lines 57-60)), a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing (whereas, a portion/area of a first template/document, is being compared to other document/templates), and a stored document/template is selected based on the closest matching score (column 2, lines 38-45). The Office alleges it would have been obvious to have modified Hind et al's matching system to further compare elements in the original document and identified a stored document based on the elements closest to the portion of the original document as taught by Zlotnick because it would have allowed the system of Hind et al. to use style data of an original document as input to the matching system, thus dynamically selecting the best style sheet document based on the original style/layout factors. However, Zlotnick also does not teach or suggest "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1, and the features of "applying one or more mutators ... which were applied to mutate the portion of the identified stored document" set forth in claims 9 and 18.

Instead, Zlotnick teaches an apparatus and method of form document recognition, which involve identifying a particular form based on a plurality of different form templates whose order of input to the system is not known in advance (column 2, lines 21-23). To determine which template a document is based, reference

areas on each stored template are chosen and compared with reference areas of the form document. The comparison includes scoring each template according to how well the reference areas of the form document match with corresponding reference areas of the template (column 2, lines 41-48). After the best overall match is determined, Zlotnick extracts information filled into the form according to its registration with the best-matching template (column 2, lines 48-52). It is respectfully submitted, however, that the templates described in Zlotnick for extracting information from a filled-in form are not analogous to the objects described in Hind et al. for identifying a style sheet. Furthermore, templates in Zlotnick do not relate to the claimed "stored documents," which include a portion that was mutated by one or more mutators, and that same one or more mutators are applied to a portion of the original document. Rather, the apparatus and method of Zlotnick operate to identify a template on which a form is based, and then intelligently extract information from the form after it is known what particular form is being used by the document.

There is simply no description in the Zlotnick patent of one or more mutators applied to templates, and thus no teaching or suggestion in Zlotnick of applying any such mutators to form documents. Hence, Zlotnick likewise fails to teach or suggest the features of "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1, and "applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as set forth in claims 9 and 18. Accordingly, no combination of the Hind et al. and Zlotnick patents would have taught or suggested the claimed subject matter.

For all these reasons, the Hind et al. and Zlotnick patents fail to teach or suggest the combination of <u>all</u> elements recited in independent claims 1, 9 and 18. Accordingly, the rejection of claims 1, 9 and 18 under Section 103(a) should be reversed.

### Dependent claims 2, 3, 5, 11, 12, 14, 16, 19-21, 23 and 25

Claims 2, 3, 5, 11, 12, 14, 16, 19-21, 23 and 25 depend from one of claims 1, 9 and 18, and therefore include the combinations the features set forth in their respective independent claims. For at least this reason, the rejection of these dependent claims also should be reversed. Additionally, the dependent claims recite combinations of features including additional subject matter not taught or suggested by Hind et al. and Zlotnick. However, because the distinctions pointed out above are clear, Appellants will not belabor at this time a detailed discussion of separately patentable subject matter set forth in the dependent claims.

# B. The rejection of Claims 4, 13 and 22 under 35 U.S.C. § 103 as allegedly being obvious over the Hind et al., Zlotnick and Brown et al. patents should be reversed

# Dependent claims 4, 13 and 22

The subject matter recited in each of dependent claims 4, 13 and 22 relates to a determination of an order in which to apply the mutators to the original document. However, claims 4, 13 and 22 also depend from claims 1, 9 and 18, respectively, and therefore also include the combinations of the features set forth in their respective independent claims. It is respectfully submitted that Brown et al. does not teach or suggest the features of "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1, and "applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as set forth in claims 9 and 18. Hence, even when considering Brown in combination with Hind et al. and Zlotnick, these documents would not have taught the combinations of features recited in the independent claims.

More specifically, the Brown et al. patent relates to a directive script for directing the order and the properties of transcoder operations executed on one or more transcoders in a machine that is intermediate a user device and a web content

server. According to Brown et al., the script may be tailored to account for user preferences. In operation, the Brown et al. system passes an HTTP request from the user's machine to the intermediate machine, which thereafter passes the request to the web content server. The web content server responds to the request by passing an HTML response back to the intermediate machine. The intermediate machine sends the HTML response to a transcoder, and the transcoder knows the type of device used by the user from the original HTTP request. The user preference settings are retrieved from a directive script stored at or accessible by the intermediate device, and the HTML response is transcoded according to the preferences applied from the directive script. (See, the abstract.)

However, while the transcoder(s) and directive script described in Brown et al. operate to modify the HTML document for display, and the "on-the-fly" modifiable directive script is stored in a database at the intermediate machine, the script is not itself a document identified as the "closest to a portion of the original document based on the comparing," as claimed (see, lines 6-8 of the abstract). Moreover, Brown et al. discloses that the directive script and transcoder(s) themselves work in combination to transcode, or change an HTML document, and Brown et al. is silent with respect to applying one or more mutators to that HTML document which were applied to the directive script or the transcoder(s). Furthermore, Brown does not mention or suggest that that stored documents (e.g., HTML documents) are compared and identified as having a portion which is closest to a portion of an original document, and that one or more mutators are applied to the portion of the original document which were applied to the identified stored document, as claimed. Hence, Brown et al. does not teach or suggest claimed subject matter related to applying mutator(s) to an original document which were applied to mutate the portion of the identified stored document, as claimed. Accordingly, the rejection based on Hind et al., Zlotnick and Brown et al. should be reversed.

C. The rejection of claims 6-8, 15, 17, 24 and 26 under 35 U.S.C. § 103 as allegedly being obvious over the Hind et al., Zlotnick and Wanderski et al. patents should be reversed

# Dependent Claims 6-8, 15, 17, 24 and 26

Each of the claims 6-8, 15, 17, 24 and 26 depend from one of claims 1, 9 and 18, and therefore include all the features recited in their respective independent claims. However, as pointed out above, neither Hind et al. nor Zlotnick teach or suggest the claimed features of "a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as recited in claim 1, and "applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document," as set forth in claims 9 and 18.

Additionally, the Wanderski et al. patent fails to teach these features missing in Hind and Zlotnick, even if considered in combination with these documents.

The Wanderski et al. patent is directed to a system and method for automatically creating an Extensible Markup Language (XML) dialect from an input HTML document and generating a Document Type Definition (DTD) to describe the new XML dialect so an XML parser can subsequently process the XML document. The generated DTD accommodates for dynamic factors such as a user's current context, which may include device or browser type, network bandwidth limitations, and user preferences. (See, column 7, lines 49-64.) These dynamic factors may be gathered by way of a response to a server message (column 9, line 66 to column 10, line 2), extraction from a document request (column 10, lines 40-43), and retrieval from a database (column 10, lines 8-12), and used to determine a set of transforms to be applied to the translated document (column 10, lines 48-55). According to Wanderski et al., a "translation engine" is first employed to translate an HTML document into an XML document, and then a "DTD generation engine" modifies the XML document to include tags that indicate the desired transforms that account for the dynamic factors (see, column 7, lines 61-64).

However, even if one were to consider for the sake of argument, somehow combining the "translation engine" and "DTD generation engine" of Wanderski et al. with the Hind et al. system, any comparison taught in Hind et al. would still appear to

Attorney Docket No. D/A3267 (1508/3940) Application No. 10/757,688

Page 14 of 21

suggest matching a pattern for a set of desired characteristics from a source XML document, which might include tags to indicate desired transformations, with stored characteristic identifiers, which were extracted from style sheets and stored in a repository. As pointed out above, however, Hind et al. does not describe, imply, teach, or suggest anything whatsoever about a mutator that mutated a style sheet also is applied to mutate a portion of an original document. Furthermore, Wanderski et al. also does not teach or suggest applying the same mutator(s) to the HTML document that were applied to an identified stored document, as claimed. Accordingly, this rejection should be reversed.

For at least these reasons, the Examiner failed to establish a *prima facie* case of obviousness. In particular, the proposed combinations of the Hind et al., Zlotnick and Brown et al., and Hind et al., Zlotnick and Wanderski et al. do not teach or suggest each and every feature recited in independent claims 1, 9 and 18, and thus also in dependent claims. Accordingly, the appealed rejections under 35 U.S.C. § 103 should be reversed, and such reversal is respectfully requested.

Respectfully submitted,

NIXON PEABODY, LLP

/John F. Guay, Reg.# 47248/ John F. Guay

NIXON PEABODY LLP 401 9th Street, N.W., Suite 900 Washington, DC 20004 (202) 585-5000 (202) 585-8080 (Fax)

# VIII. CLAIMS APPENDIX

The following is a complete list of all claims on appeal:

1. A system comprising:

a comparison system that compares one or more elements of at least a portion of an original document against the same types of elements in at least a portion each of a plurality of stored documents;

a determination system that identifies the stored document with the portion which is closest to the portion of the original document based on the comparing; and

a mutation system that applies one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document.

- 2. The system as set forth in claim 1 further comprising a selection system that selects the portion of the original document for the comparing.
- 3. The system as set forth in claim 1 wherein the determination system further comprises a scoring system that generates a score for each of the comparisons of the portion of the original document against each of the portions of each of the plurality of stored documents, wherein the determination system identifies the stored document with the portion with the score which is closest to the portion of the original based on the generated scores.
- 4. The system as set forth in claim 1 further comprising an ordering system that determines an order for the mutation system to apply the mutators to the portion of the original document.
- 5. The system as set forth in claim 1 further comprising an application system that determines which of the one or more mutators which were used in the portion of the identified stored document are to be used by the mutation

system on the original document.

- 6. The system as set forth in claim 1 further comprising an output system which outputs the original document after application of the mutators.
- 7. The system as set forth in claim 6 further comprising an identification system that identifies the output system wherein one of the elements used in the comparison system is the identified output system against an output system used for each of the stored documents and wherein the determination system uses the comparison of the identified output system against an output system used for each of the stored documents in identifying the stored document with the portion which is closest to the portion of the original document.
- 8. The system as set forth in claim 1 further comprising storing the output, original document with the applied mutators as one of the stored documents.
  - 9. A method comprising:

comparing one or more elements of at least a portion of an original document against the same types of elements in at least a portion each of a plurality of stored documents;

identifying the stored document with the portion which is closest to the portion of the original document based on the comparing; and applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document.

- 10. The method as set forth in claim 9 further comprising performing the comparing, the identifying, and the applying on one or more other portions of the original document.
- 11. The method as set forth in claim 9 further comprising selecting the portion of the original document for the comparing.
  - 12. The method as set forth in claim 9 wherein the identifying

further comprises:

generating a score for each of the comparisons of the portion of the original document against each of the portions of each of the plurality of stored documents; and

identifying the stored document with the portion with the score which is closest to the portion of the original based on the generated scores.

- 13. The method as set forth in claim 9 further comprising determining an order for the applying of the mutators to the portion of the original document.
- 14. The method as set forth in claim 9 wherein the applying further comprises determining which of the one or more mutators which were used in the portion of the identified stored document to use in the applying.
- 15. The method as set forth in claim 9 further comprising outputting the original document after application of the mutators.
- 16. The method as set forth in claim 9 further comprising identifying an output system on which the outputting of the original document with the applied mutators will occur wherein one of the elements in the comparing is the type of output system used in the outputting.
- 17. The method as set forth in claim 9 further comprising storing the output, original document with the applied mutators as one of the stored documents.
- 18. A computer readable medium having stored thereon instructions for dynamic document layout which when executed by a processor, causes the processor to perform steps comprising:

comparing one or more elements of at least a portion of an original document against the same types of elements in at least a portion each of a plurality of stored documents;

identifying the stored document with the portion which is

closest to the portion of the original document based on the comparing; and applying one or more mutators to the portion of the original document which were applied to mutate the portion of the identified stored document.

- 19. The medium as set forth in claim 18 further comprising performing the comparing, the identifying, and the applying on one or more other portions of the original document.
- 20. The medium as set forth in claim 18 further comprising selecting the portion of the original document for the comparing.
- 21. The medium as set forth in claim 18 wherein the identifying further comprises:

generating a score for each of the comparisons of the portion of the original document against each of the portions of each of the plurality of stored documents; and

identifying the stored document with the portion with the score which is closest to the portion of the original based on the generated scores.

- 22. The medium as set forth in claim 18 further comprising determining an order for the applying of the mutators to the portion of the original document.
- 23. The medium as set forth in claim 18 wherein the applying further comprises determining which of the one or more mutators which were used in the portion of the identified stored document to use in the applying.
- 24. The medium as set forth in claim 18 further comprising outputting the original document after application of the mutators.
- 25. The medium as set forth in claim 18 further comprising identifying an output system on which the outputting of the original document with the applied mutators will occur wherein one of the elements in the comparing is the type of output system used in the outputting.

Attorney Docket No. D/A3267 (1508/3940) Application No. 10/757,688 Page 19 of 21

26. The medium as set forth in claim 18 further comprising storing the output, original document with the applied mutators as one of the stored documents.

Attorney Docket No. D/A3267 (1508/3940) Application No. 10/757,688 Page 20 of 21

# IX. EVIDENCE APPENDIX

(None)

Attorney Docket No. D/A3267 (1508/3940) Application No. 10/757,688 Page 21 of 21

# X. Related Proceedings Appendix

(None)